

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An electrochemical gas sensor comprising:
a working electrode comprising a gas porous membrane and a catalyst layer formed on one side of the membrane;
a counter electrode that includes a catalyst;
electrolyte in contact with the catalyst both of the working electrode and of the counter electrode; and
a support which is one of rigid or semi-rigid, the support is in contact with, and presses against a side of the working electrode remote from the electrolyte to compress the electrodes and the electrolyte together, the support having a thickness of only approximately 0.1 mm thick not greater than 0.5 mm and wherein the support defines a plurality of open areas allowing gas to contact the membrane, the surface area of that portion of the support between the open areas being less than 40% of the combined surface area of the open areas and that portion of the support between them.
2. (previously presented) A sensor as claimed in claim 1, wherein that portion of the support, between the open areas, is in the form of elongated members, having a width less than 0.5mm.
3. (previously presented) A sensor as in claim 2 where the elongated members have a width less than one of .3mm or .2mm.
4. (previously presented) An electrochemical gas sensor comprising:
a working electrode comprising a gas porous membrane and a catalyst layer formed on

one side of the membrane;

[[A]] a counter electrode that includes a catalyst;

electrolyte in contact with the catalyst both of the working electrode and of the counter electrode; and

a support that is in contact with, and presses against a side of the working electrode displaced from the electrolyte to compress the electrodes and the electrolyte together, such support comprising a plurality of open areas that enable gas to contact the membrane, the support including solid regions that extend between the open areas for contacting and supporting the membrane, such solid regions having a thickness of only approximately 0.1 mm and having a width on the order of one of less than 0.3 mm, or less than 0.2 mm, and wherein the aggregate surface area of the solid regions is less than 40% of the combined surface area of the support, including the open areas.

5. (previously presented) A sensor as claimed in claim 4 wherein the support has a thickness of not greater than .5 mm.

6. (previously presented) A sensor as in claim 5 where the thickness is less than one of .4 mm, .3 mm or .2 mm.

7. (previously presented) A sensor as in claim 4 wherein the regions of the support between the open areas are in the form of elongated linear members.

8. (previously presented) A sensor as in claim 4 wherein the surface area of the support between the open areas is less than one of 30%, 20% or 10% of the surface area of the support.

9. (previously presented) A sensor as in claim 4 which includes a reference electrode.

10. (previously presented) A sensor as in claim 4 wherein the support is metallic.

11. (previously presented) A sensor as in claim 4 wherein the open areas of the support are formed into one of a rectangular or a hexagonal pattern.

12. (previously presented) A sensor as in claim 4 which includes a housing, and wherein the support includes a rim that is fused or welded to the housing.
13. (currently amended): An electrochemical gas sensor comprising:
 - a housing that defines an internal region;
 - first and second electrodes carried by the housing in the region;
 - an electrolyte between the electrodes;
 - a retaining mesh that is attached to the housing and is only approximately 0.1 mm thick, covering a predetermined area of one of the electrodes and which presses the one electrode and the electrolyte toward the other electrode, an open portion of the mesh exceeds 60% of the area covered by the mesh.
14. (previously presented) A sensor as in claim 13 wherein the mesh is formed of elongated linear members having a width less than .5mm.
15. (previously presented): A sensor as in claim 13 wherein the mesh has a thickness less than .5 mm.
16. (previously presented) A sensor as in claim 13 where the open portion of the mesh comprises a plurality of one of rectangular or hexagonal patterns.
17. (previously presented) A sensor as in claim 13 where the open portion of the mesh exceeds 70% of the area.
18. (previously presented) A sensor as in claim 17 where the electrodes are metallic and the mesh is flexible.
19. (currently amended) A sensor as in claim 13 ~~19 where the mesh has a thickness on the order of .1mm~~ and where the open portion of the mesh exceeds 90% of the area.